consider what steps could be taken in furtherance of the use of steel for structural purposes, and signed the report, which was issued in March 1877. He was elected a Fellow of the Royal Society June 12, 1879. His certificate of claim is probably as short as any ever set forth for candidature, bearing, as it does, the single sentence, "Discoverer of the Bessemer process of making steel." In the same year he received the honour of knighthood, and in 1880 was presented with the freedom of the City of London. From abroad he received many honours. He was offered the Grand Cross of the Legion of Honour; but as permission to wear it was refused, he had to be content with a large gold medal given him by Napoleon III. He was an honorary member of the Iron and Steel Board of Sweden, a freeman of the City of Hamburg, an honorary member and gold medallist of the Society of Arts and Manufactures of Berlin, and a Grand Cross of the Order of H.I.M. Francis Joseph of Austria.

His written contributions to science were very limited. The Royal Society's "Catalogue of Scientific Papers" contains one other besides the two already given, viz. "On the Resistance of the Atmosphere to Railway Trains and on a means of lessening the same" (*Franklin Inst. Journ.*, vol. xiv., 1847). It is in connection with his metallurgical labours that his name will go down to posterity; and as an inventor who refused to be discouraged by obstacles, and pertinaciously held on to a scheme until it carried him to success.

NOTES.

A SPECIAL meeting of the Royal Society will be held in the rooms of the Society at Burlington House on Thursday, March 31, at 4.30 p.m., to receive preliminary statements as to the results of observations made during the recent total solar eclipse. Communications will be made by the Astronomer Royal, Sir Norman Lockyer, K.C.B., and other gentlemen.

MR. CHREE'S communication in another column relating to the present disturbed magnetic conditions is most interesting in relation to the recent eclipse. The remarkable association of a great number of sun-spots was connected in the telegrams from Viziadurg with the brightness of the corona, and the absence of the equatorial extensions seen at the period of minimum sun-spots. The wonderful chemistry of the spots may also be referred to recent observations, indicating chiefly the presence of scandium and vanadium. Magnetic storms and auroræ therefore are little to be wondered at. Were there any indications in January and February?

AT the meeting of the British Association held at Toronto last year, a resolution was passed by the general committee, requesting the Council to consider the desirability of approaching the Government with a view to the establishment in Britain of experimental agricultural stations similar in character to those which are producing such satisfactory results in Canada and elsewhere. This proposal was referred by the Council to a special committee, which has since made a report. The committee, while agreeing that some central institution might be of great use in the improvement of agriculture in this country, pointed out that there are already a number of independent bodies, connected with agricultural societies, colleges, and county councils, which are conducting agricultural investigations, and that it would be undesirable to approach the Government without the co-operation and support of these various bodies. The Council of the British Association has accepted this report, and has requested the committee to communicate with the various institutions interested in agriculture throughout the country, and to ascertain their views upon the subject. We are informed that the committee are now in communication with the various institutions referred to, in order to obtain a combined opinion upon the desirability of the creation by the Government of a central agricultural institution, for the purpose of undertaking agricultural research, and of acting as a centre of union for the various bodies conducting similar researches in this country, and of affording them advice and assistance when desired.

THE following officers of sections have been appointed for the Bristol meeting of the British Association:—Section A—President: Prof. W. E. Ayrton, F.R.S. Vice-Presidents: Prof. Rücker, F.R.S., Prof. S. P. Thompson, F.R.S. Secretaries: Prof. A. P. Chattock, Prof. W. H. Heaton (Recorder), J. L. Howard, W. Watson, E. T. Whittaker. Section B—President: Prof. F. R. Japp, F.R.S. Vice-President: Prof. W. Ramsay, F.R.S. Secretaries: Dr. C. A. Kohn (Recorder), Dr. T. K. Rose, F. Wallis Stoddart. Section C—President: W. H. Hudleston, F.R.S. Vice-President: E. Wethered. Secretaries: G. W. Lamplugh, Prof. H. A. Miers, F.R.S. (Recorder), E. Wilson. Section D—President: Prof. W. F. R. Weldon, F.R.S. Vice-Presidents: Prof. F. Gotch, F.R.S., Prof. L. C. Miall, F.R.S. Secretaries: W. Garstang, Dr. A. J. Harrison, W. E. Hoyle (Recorder). Section E—Vice-Presidents: Colonel F. Bailey, Dr. J. Scott Keltie. Secretaries: H. N. Dickson, Dr. H. R. Mill (Recorder), A. J. Herbertson, H. C. Trapnell. Section F—President: Dr. J. Bonar. Vice-President: Prof. E. C. K. Gonner. Secretaries: E. Cannan, Prof. A. W. Flux, H. Higgs (Recorder), W. E. Tanner. Section G—President: Sir John Wolfe-Barry, F.R.S. Vice-President: G. F. Deacon. Secretaries: Prof. T. H. Beare (Recorder), H. W. Pearson, W. A. Price, Prof. John Munro. Section H—President: E. W. Brabrook, C.B. Vice-President: C. H. Read. Secretaries: H. Balfour, J. L. Myres (Recorder), Dr. G. Parker. Section K—President: Prof. F. O. Bower, F.R.S. Vice-President: Prof. H. Marshall Ward, F.R.S. Secretaries: A. C. Seward (Recorder), Prof. J. B. Farmer, J. W. White.

SIR GEORGE KING has retired from the superintendentship of the Royal Botanical Gardens, Calcutta, and has been succeeded by Surgeon-Major David Prain.

THE Bakerian Lecture will be delivered at the Royal Society this afternoon by Dr. W. J. Russell, F.R.S., the subject being "Further experiments on the action exerted by certain metals and other bodies on a photographic plate."

THE centenary of the discovery of the voltaic pile will shortly be celebrated at Volta's birthplace on Lake Como.

M. ÉMILE PICARD, member of the Paris Academy of Sciences, and professor of higher algebra in the University of Paris, has been elected corresponding member of the Berlin Academy of Sciences.

DR. LUDWIG MOND, F.R.S., has been elected a member of the Athenæum Club, under the rule which empowers the Committee to elect annually nine persons "of distinguished eminence in science, literature, the arts, or for public services."

THE annual meeting of the Iron and Steel Institute of Great Britain will be held in London on Thursday and Friday, May 5 and 6. At this meeting the Council will present their annual report for 1897, and a number of papers will be read and discussed. The autumn meeting of the Institute will be held at Stockholm, under the auspices of the Swedish Association of Ironmasters, on Friday and Saturday, August 26 and 27.

THE Academy of Mathematical and Physical Sciences of Naples offers a prize of 500 lire for the best memoir on some subject connected with stereo-chemistry. The essays, which must be in Italian, Latin or French, must be sent in to the Secretary of the Academy not later than June 30, 1899. A prize of 1000 lire has just been awarded by the Academy to Prof. Giuseppe de Lorenzo for his essay on the pleistocene lakes of Southern Italy.

THE Royal Academy of Sciences of Bologna announces that a gold medal in memory of Aldini will be awarded in 1899 for the best essay on galvanism (animal electricity). The essays may be either in Italian, French or Latin, or may be in any other language, provided the author sends in a translation in one of these languages. They may either be in manuscript or printed, provided that in the latter case their publication has taken place within the two years preceding the award. Papers competing for the prize are to be sent before May 29, 1899, addressed to the Secretary of the Royal Academy of Sciences of the Institute of Bologna.

PROF. B. BRAUNER, of Prague, addressed an extraordinary meeting of the Chemical and Physical Society of University College, London, on Friday, March 18, and gave an account of his investigations with regard to the elements thorium, praseodymium and neodymium, his revision of the atomic weights of the latter elements, and their probable positions in the periodic table. In concluding his address, Prof. Brauner drew attention to the scientific importance of further investigation among the rare earths, and expressed a hope that more chemists would enter this field of research, which promised results of the highest value. In proposing a vote of thanks, Prof. Ramsay pointed out that the work, of which an account had been given, was a monument of careful experiment and extraordinary industry. Although it might appear to many present that an enormous amount of labour had been expended on an obscure corner of chemistry, it must be remembered that it was precisely such work which bore on the whole of chemical theory; and, indeed, which might be expected to influence chemical manufactures at a future date. It was possible that in the middle of the next century these researches of Prof. Brauner might bear fruit in extensive industrial application, and that these researches might become household words in the mouths of future generations of chemists. Prof. Tilden, in seconding the vote of thanks, desired in the first place to offer to the Society his own thanks, and those of his colleagues and students who were present, for the courteous invitation which had been extended to them. He congratulated Prof. Brauner on the success which so far had attended his labours, to which he had brought so large a supply of patience and perseverance, and in framing his hypotheses so much of the inspiration of the poet. In regard to the origin of these strange elements, the choice seemed to lie between the notion that they represented the ruins of a former state of things, or they might stand for those "old worn particles" referred to by Descartes, and on the other hand the idea that they resulted from the condensation of the original protyl, though in some way the process differed from that which gave rise to the rest of the elements. With regard to cobalt and nickel, which had been mentioned, he thought it probable that their atomic weights would ultimately turn out to be not quite so nearly identical as sometimes supposed. At the close of the meeting Prof. Brauner exhibited the absorption spectra of salts of praseodymium and neodymium, and a number of specimens of the pure salts.

AT a meeting of the Associated Chamber of Commerce, on March 17, Sir H. Stafford Northcote, Bart., M.P., in the chair, the following resolution was carried unanimously:—"That, in the opinion of this Association, the compulsory adoption within some limited period of the metric system of weights and measures legalised by the Act of last Session be advocated by every possible means, with the view of inducing Her Majesty's Government to afford facilities for the amendment of the law in this respect, and that a copy of this resolution be sent to the President of the Board of Trade and to the First Lord of the Treasury. This Association urges the Government meanwhile to adopt the metric system of weights and measures, as far as possible, in all Government contracts and returns, so as to make it familiar to the people; and recommends individual Chambers of Commerce to press the matter upon the attention of local governing bodies, to the end that these also may employ the system in all public contracts, and thus facilitate its general adoption."

WORK has just been begun upon a new building—the Horniman Free Museum—which Mr. F. J. Horniman, M.P., intends to present to the inhabitants of Dulwich and the neighbourhood. Several years ago Mr. Horniman filled a house at Forest Hill, London, with curios and objects of natural history, and made this museum free to the public. He now proposes to house the collections more elaborately, and it is for this purpose that the new building is to be erected. The building will contain two lofty galleries, each 100 feet long, lighted from the top. In addition, there will be a large lecture theatre capable of seating 300 people. The galleries will be divided into various courts, each devoted to a separate class of objects. Special provision will be made for the zoological and entomological specimens. Around the site of the new museum Mr. Horniman has purchased fifteen acres of ground, which he intends to convert into a public park and recreation ground. One of the mansions at present occuping the site is to be fitted up as a free library and club house, separate rooms being devoted to the free use of the scientific and other clubs in the neighbourhood.

THE *Athenæum* announces that the Accademia dei Lincei has chosen Prof. Eugenio Beltrami as president, in place of the late Prof. Brioschi. The new president of the most important scientific society in Italy, like his predecessor, is a mathematician. He is a native of Cremona, sixty-three years old, and has enriched his special branch of literature with a series of works on differential geometry, electricity, and magnetism. He is at present occupied with the editing of Leonardo da Vinci's "Codice Atlantico."

SOME few years ago the attention of readers of NATURE was directed to the then very remarkable utterance of an Oxford theological tutor on the subject of evolution. We refer to the late Canon Aubrey Moore. We now quote a striking passage by another Oxford teacher, whose sincerity and philosophic acumen are becoming generally recognised—the Rev. Charles Gore, Fellow of Trinity College, Oxford, and Canon of Westminster. The lecturer, after referring to the extraordinarily free way in which St. Paul quotes the Old Testament, says that: "Thereby we learn a lesson which we have got to learn, that Divine revelation does not include critical methods. God leaves us to the critical methods natural to every age, and each age must readjust its criticism. What God does give us is a moral and spiritual revelation of His own being and of our being, of our destiny and of our sin, and a revelation of the Divine means that God has taken for our recovery; and we have got to learn that lesson. Divine revelation is in the things of faith and morals—as we say, is of spiritual things; and we only bewilder our intelligences and cause stumbling-blocks if we try to assert that Divine revelation is given of these matters of natural science which progress from age to age by human investigation." The passage is quoted from a verbatim report in the *Guardian*, as it was delivered in Westminster Abbey to a crowded audience of thoughtful men on March 11, during Canon Gore's third Lent lecture on the epistle to the Romans.

IN *Annalen der Hydrographie und maritimen Meteorologie* for February, Dr. W. J. van Bebber has an article on weather prediction, with especial reference to the storm signal service on the German coasts. The author lays stress upon the difficulty of obtaining a clear idea of the success of weather predictions in different countries owing to the various methods of checking them, and thinks that the only safe criterion is the opinion of the public most interested in them. He makes various proposals for the improvement of the forecast, most of which have been previously considered, *e.g.* : (1) The extension of telegraphic communication to islands in the North Atlantic. (2) The introduction of the so-called circular system of communication, by placing the principal stations and central offices throughout Europe in direct telegraphic correspondence with each other, immediately after the observations are taken. (3) More frequent telegrams, and where possible the establishment of telemeteorographs, or instruments reporting the chief meteorological elements continuously to the central offices. This arrangement already exists at a few places on the continent. (4) A direct exchange of telegrams between various signal stations. (5) The adoption of means for more generally disseminating the principles of weather conditions among the public, and the publication of an atlas containing types of weather, by means of which telegraphic reference to conditions similar to those actually existing might be made, without waiting for the publication of weather charts, as at present. The serious question of expense underlies the adoption of any of these suggestions.

THE Industrial Commission, appointed by the Lieutenant-Governor of the Isle of Man, to consider the best means of promoting new Manx industries, received from Prof. Herdman, at a meeting held last week, some important evidence relative to encouraging Manx sea fisheries, spawning beds, and hatcheries. Prof. Herdman expressed the opinion that the failure of the herring fisheries was more due to natural causes, such as the absence of food or changed meteorological conditions, than to overfishing or other cause that could be controlled. He did not think that fish were scared away, because the herring was a most tenacious fish, and would go where it wanted in spite of great difficulties. He did not think that steam trawlers did much harm by destroying spawn. On the contrary, they rather did good by catching the fish (haddock) that lived on herring spawn. He agreed that the three-mile limit was a good rough and ready method of preserving young fish. To obtain any other method of protection would require international law. With regard to hatcheries, he favoured the establishment of hatcheries for cod, plaice, and white sole at Port Erin, and oyster beds at Derbyhaven.

AN interesting report has been made to the Essex Technical Instruction Committee by Mr. T. S. Dymond, the Staff Lecturer on Chemistry, on the damage done to the land by the salt-water flood due to the injury of the sea-banks by the gale and high tide of November last. From this report it appears that round the coast of Essex alone about 50,000 acres of land were flooded by the overflowing of the salt water. Upon some of the farms the water only remained a few hours ; other land was flooded for six or eight days ; and in some cases the sea walls have not been repaired, and the water flows over the land during spring tides. This land in its ordinary condition contains only ·01 per cent. of salt, whereas the flooded land is found by analysis to contain ·20 per cent., equal to two tons an acre in the top six inches of soil. This excess of salt is injurious to vegetation. Peas and tares have suffered severely, wheat has been damaged to a less extent, and where the seed had not germinated does not seem to have been affected. The most serious and more permanent effect, however, is due to the effect of the salt on the earthworms, which after the flood were found strewn upon the surface of the ground, whence they were carried off by the gulls. The use of worms in assisting the drainage and promoting aeration of the soil is universally recognised, and their extermination in the heavy flooded land is therefore a serious matter. The sea salt also, owing to its power of absorbing moisture, renders the soil moist and difficult to work, and also prevents the aeration which is necessary to the roots of the plants, and for promoting fermentation of humus, and nitrification. The injury to the land by the destruction of the earthworms was a fact generally accepted as correct in the inundation due to an exceptionally high tide which covered a large area of the Lincolnshire Fens with salt water at the beginning of the present century.

A SPECIMEN copy of a new French scientific journal has been sent to us, entitled *Archives de Parasitologie*. As its name implies, it is hoped it may become the organ of researches dealing with parasites capable of provoking disease in both man and animals. The editor is Raphael Blanchard, Professor at the Faculty of Medicine of Paris, and he hopes by admitting memoirs in German, English, Spanish and Italian, to encourage foreigners to send their work for publication in his journal. It will appear quarterly, and no pains, it is stated, will be spared to ensure the printing and illustrations being of the best possible character. In connection with the subject of parasitic disease, there is an interesting little article—"Notes on the life-history and microscopic appearances of the parasite of Malaria," by A. E. Griffin —in the current number of the *Middlesex Hospital Journal*. Although the parasite of malaria was discovered and described by Laveran as long ago as the year 1880, its life-history has by no means been yet thoroughly worked out. It is, however, supposed that mosquitos may play an important part in the evolution of this parasite, and that, present as an encysted form in the eggs of these insects, the germs may be introduced through the medium of air or water into the human body ; or a mosquito which has become infected with the blood of a malarial patient may attack and infect a human being directly. The medium of infection is generally supposed to be through the air ; but there is strong evidence that water may also convey the disease, and Mr. Griffin cites cases of malaria contracted on a ship which, touching at Colombo, took in water there, and twelve days later, the usual incubation period, the disease manifested itself on board. Arsenic in large doses, it appears, proved a more valuable remedy than quinine in the late Ashanti war.

DR. F. VON KERNER contributes a paper on the geography of the middle course of the river Kerka to the *Mittheilungen* of the Vienna Geographical Society. The Kerka ceases to be navigable at the falls of Scardona, and above that point its course is impeded by many falls and rapids. Dr. Kerner's paper is illustrated by six excellent photographs of this picturesque region.

THE third of the *Münchener geographische Studien*, edited by Herr Siegmund Günther, consists of a paper on the structure and distribution of earth pyramids and pillars, by Dr. Christian Kittler. The nature of the deposits in which these structures are formed, and of the erosive action which produces them, is discussed in detail. A noteworthy point is the conclusion that the crowning stone is by no means an essential feature.

DR. GIOVANNI DE AGOSTINI publishes in the *Bollettino* oi the Italian Geographical Society a preliminary note on some results of exploration of the lakes of the Roman province. Soundings and temperature observations at various depths, made during 1896 and 1897 in the lakes Bolsena, Mezzano, Vico, Monterosi, Bracciano, Martignano, Albano, and Nem are discussed, and contour maps are appended.

AT the meeting of the Vienna Academy of Sciences on February 10, the President read a letter from Prof. J. Luksch, of the *Pola* expedition, dated from Suakim on January 23. On January 10 the *Pola* anchored at Ras Tarfu, and a boat was sent to Geishan to obtain a pilot for El Wasm and Kunfida. Next day a party was landed to make observations, but the observers were attacked by Bedouins, and only escaped after some sharp fighting under cover of the guns of the ship. Fortunately there was no loss in killed or wounded ; even the instruments were brought off safely. Since leaving Mocha, the *Pola* has made valuable observations, chiefly geological, at a number of points along the coast, and amongst the islands.

An instance of the service which the Department of Scientific and Technical Research of the Imperial Institute is able to render appears in the number of the *British Central Africa Gazette*, which has just reached this country. A specimen of limestone found on Kilwa Island, Lake Shirwa, was sent to the Institute for an opinion as to its value, and Mr. Wyndham R. Dunstan sent the following report upon it:—"The sample of limestone from Kilwa Island, which is used at Zomba for making lime, turns out to be calcium carbonate—Iceland spar. It contains small quantities of iron and magnesium, and also of phosphate. This last constituent, though minute (0·1 per cent.), should be borne in mind in connection with the possible use of the mineral, either burnt or in its natural state, as a manure. Another point, to which I think it would be well to direct attention, is the value of large, well-formed, colourless *transparent*, rhombohedral masses of the spar. These are employed in the construction of certain optical instruments, and I was informed by one of the principal manufacturers not long ago that the supply of these crystals is now very scarce." The *Gazette* states that, on receipt of this information, the Acting Commissioner took steps to procure and send home for valuation transparent specimens of this crystal.

In a presidential address to the Conchological Society, published in the January number of the *Journal of Conchology*, Prof. Hickson offers a suggestion to explain the untwisting of the body which has admittedly taken place in certain groups of Gastropod Mollusca. The asymmetry of the Gastropod body was clearly brought about by the acquisition of a spire-like shell, into which its possessor could completely withdraw. Such a shell, however, though advantageous as a protection, is an obstacle to locomotion; therefore, if the Gastropod body could be protected in another way, the *raison d'être* for a spiral shell would disappear. Any increase in the size of the foot, bringing about increased powers of locomotion, would be an advantage to the species in giving it a wider range; and, to obviate the disadvantage of exposing the body to the possible attacks of enemies, an obnoxious or poisonous fluid might be secreted. In support of this view, Prof. Hickson states that among Opisthobranchs there is actually a series of forms showing a gradual diminution in the twist of the shell and a corresponding increase in the size of the foot; and, in addition, points out that some Nudibranchs have been shown to be distasteful to fishes.

In *Bulletin* 11, new series, of the U.S. Department of Agriculture (Division of Entomology), Mr. L. O. Howard describes the introduction and spread of the Gipsy Moth (*Porthetria dispar, L.*) in Massachusetts, and the means employed for its extermination. This species, injurious on the Continent, but now apparently extinct in Great Britain, was introduced into Massachusetts in 1869 by the escape of examples imported for experiments in silk-growing. Becoming acclimatised in scrub-undergrowth, it multiplied slowly in spite of efforts made to check it, becoming a serious pest by 1889. Since that time its range has extended to about 220 square miles, within which area it has done enormous destruction by the defoliation of deciduous trees. The State has fought it energetically, expending in the the last eight years as much as 725,000 dollars, in addition to 40,000 dollars allowed by Congress. In some years, however, the grants have been made too late to allow the work of destruction to be adequately proceeded with. The chief measures relied on are spraying the foliage with lead arsenate, destruction of the eggs with creosote, grease-banding the trunks to prevent caterpillar ascent, or tying them round with strips of coarse canvas (burlap), under which the caterpillars assemble, and whence they can be collected. Mr. Howard, who claims that this will rank as "one of the great experiments in economic entomology in the history of the world," estimates that more than nine tenths of the colonies, large and small, existing in 1891, have been exterminated; and, except for the difficulty of dealing with woodlands, there appears to be no reason why continuance of the present treatment should not ultimately achieve the total extirpation of the insect.

Prof. Putnam has called our attention to an error in the summary of his paper on the magnetic survey of Greenland (NATURE, February 10, p. 347). He points out that the balancing ring employed was of appreciable width, and that, therefore, the formula used in computing the moment of inertia was correct. In this Prof. Putnam is quite right, and the writer of the notice regrets that he did not follow the description of the instrument with sufficient care. As stated in the article, the numerical results are in no way affected.

A new periodical—*The Wide World Magazine*—has just been commenced by Messrs. Geo. Newnes, Ltd. The first number contains several instructive articles, all of which are illustrated by striking photographs. Probably no more remarkable collection of pictures have ever appeared than are reproduced in this new magazine. Among the contents we notice a number of pictures of scenes and people in New Guinea, contributed by Prof. A. C. Haddon; photographs of various devotees; an article by Dr. Nansen, entitled "How the North Pole will be reached"; a number of interesting photographs of scenes in China, by Mr. J. Thomson; reproductions of several of Mr. Saville-Kent's curious photographs; and some memories of Navarino, by Admiral Sir Erasmus Ommanney. The magazine is distinctly in advance of the general type of popular periodical, and its contents bear out its motto that "Truth is stranger than fiction."

The additions to the Zoological Society's Gardens during the past week include a Mexican Deer (*Cariacus mexicanus*, ♂), a Reddish Brocket (*Cariacus rufinus*, ♂), a Globose Curassow (*Crax globicera*, ♀) from British Honduras, presented by H.E. Colonel Wilson, C.M.G.; two Zebus (*Bos indicus*, ♂ ♀) from India, presented by Commander George Stevenson; a Macaque Monkey (*Macacus cynomolgus*, ♀) from India, presented by Mr. M. Lyons; a Senegal Parrot (*Pœocephalus senegalus*) from West Africa, presented by Miss L. Firmin, a Common Fox (*Canis vulpes*, ♂), British, presented by Miss Heard; a Malayan Paradoxure (*Paradoxurus hermaphroditus*) from Singapore, a Hairy Armadillo (*Dasypus villosus*) from La Plata, a Grand Eclectus (*Eclectus roratus*) from Moluccas, deposited; a Manchurian Crane (*Grus japonensis*), four Gold Pheasants (*Thaumalea picta*, ♂ ♂ ♀ ♀) from China, two Argus Pheasants (*Argus giganteus*, ♂ ♀) from Malacca, two Horned Tragopans (*Ceriornis satyra*, ♂ ♀) from South-east Himalayas, two Lineated Pheasants (*Euplocamus lineatus*) from Tenasserim, two Somali Ostriches (*Struthio molybdophanes*, ♂ ♀) from Somali-land, two Many-coloured Parrakeets (*Psophotus multicolor*), four Spotted-sided Finches (*Amadina lathami*) from Australia, a Snow Bunting (*Plectrophanes nivalis*), European; two Lapwings (*Vanellus cristatus*), British, purchased; seven Baer's Ducks (*Fuligula baeri*) from India, received in exchange.

OUR ASTRONOMICAL COLUMN.

Magnitudes of 1081 Southern Stars.—During a voyage to Australia (1885-86), round the Cape of Good Hope and back by the Red Sea, including a stay of two months in Australia, Mr. Stanley Williams was able to make a very useful catalogue of 1081 stars lying between 30° south declination and the South Pole.